

ABSTRACT OF THE DISCLOSURE

5 A polysilicon line (22), used e.g. as a gate, has a portion (30) amorphized by implanting (19) particles having a relatively large atomic mass. The amorphized portion is used to form a metal silicide (38) having a desirably low sheet resistance. Exemplary metals are cobalt and nickel that can provide the thin lines of below 50 nanometers. An exemplary particle for implanting that has sufficient atomic mass is xenon. The dose and the energy of the implant (19) are potentially different based on the linewidth (21) of the polysilicon line (22).